



Alexander Shulgin and the author.

The Last Interview With Alexander Shulgin

Which, Technically, Was Not an Interview at All

BY HAMILTON MORRIS
PHOTOS BY ASH SMITH

I love Alexander Shulgin. I’ve loved him from the first moment I read about him. He is my idol, my hero, my sun, my O₂. I love each of the 978 pages of his phenethylamine magnum opus, *PiHKAL* (*Phenethylamines I Have Known and Loved*), and every milligram of his 1.13-kilogram tryptamine treatise, *TiHKAL* (*Tryptamines I Have Known and Loved*). Above my bed I’ve pinned a large picture of Shulgin cuddling with his wife, Ann. I often sleep with a copy of *PiHKAL* not under my pillow, but *as* a pillow. He is the grandfather of Ecstasy, the molecular magician, the atomic conquistador. Over the span of 50 years he has created more new psychedelic drugs than the Amazon jungle ever has. He is more of a mythological creature, a chemical centaur,

than he is a real person. But he does exist, as I am about to attest.

After years of preparation I called the Shulgin residence, ostensibly for an interview. It was the sort of call that you prepare for by jotting down an index card’s worth of dialogue. The type of event that requires careful pre-call meditative deep breathing, positive affirmation, autohypnotic closed-eye success visualizations, and as many as five throat clears. I somehow managed to dial the number and, while I listened to the ring-back chirp two-second bursts of perfectly overlapping sinusoidal waves followed by four-second stretches of exophthalmic silence and yet another sinusoidal ring-back tone, my nose actually began to *bleed* with anticipation. The call was answered by Ann.

We had a conversation; she called me “honey,” which I enjoyed tremendously, and unexpectedly had a New Zealand accent. Ann told me that Sasha (Shulgin’s friends call him this) no longer grants interviews—he’s conserving his limited energy to finish his last book and work in the lab. After hearing this, I carefully explained that I did not specifically require an interview. I just wanted a meeting, an informal conversation. Eventually it was decided that I could visit for a few hours before an electrocardiogram appointment. She reminded me that he really does not give interviews anymore and if my meeting with him were to turn into one, it would be his last. I was elated.

Although Alexander Shulgin is not exactly a household name, he is unquestionably the

most important psychedelic chemist who has ever lived. Those who do know of him are usually only familiar with his role in the rediscovery and popularization of MDMA. But MDMA is just one of 100-plus unique chemicals that compose Shulgin’s pharmacopeia, which extends so far into the unknown that he often has to invent new terms to describe the effects (“eye romp” is one of my favorites). The drugs are selective auditory and tactile hallucinogens, psychedelics that dilate time or send the user into a state of amnesiac confusion, antidepressants, aphrodisiacs, stimulants, empathogens, entactogens, neurotoxins, and at least one very profitable insecticide. They are also some of the most valuable medicines known to man, and although only a fraction of them have been formally studied, they are the best tools we have for understanding the chemical composition of the human mind.

Shulgin’s career started at the Dow Chemical Company, where he made a name for himself synthesizing Zectran, the first biodegradable insecticide. After this success he was given freedom to work on chemicals of his choosing. He chose psychedelics and went on to create an amphetamine called DOM, which at the time was second only to LSD in potency. A single large dose could last a solid 48 hours. In 1967, Brooklynite chemist Nick Sand realized the drug’s market potential. He built an industrial laboratory in San Francisco where he cooked DOM in a 150-gallon soup vessel and sold it by the kilo to the Hells Angels, who rode across America unleashing tens of thousands of excessively potent 20-mg DOM tablets on the public. The influx caused hordes of hippies to freak out at the Golden Gate Park Human Be-In.

Meanwhile, less than a block from Tompkins Square Park, the NYPD busted down the door of a psychedelic chapel called the Church of the Mystifying Elation in an early-morning raid. Police seized \$8 million worth of psychedelics, including 1,500 doses of DOM, two marijuana plants, and “numerous mattresses.” Stories of emergency-room DOM freak-outs abounded in the press; one user in Manhattan ingested a dose and ritualistically performed seppuku, disemboweling himself with a samurai sword on Mother’s Day. At this point the drug was still largely unidentified and was alternately reported in the *New York Times* to be a relative of a secret military nerve gas or as the “caviar of psychedelic drugs.” Eventually it was realized that DOM was the product of legitimate pharmaceutical research conducted by a then-unnamed chemist at Dow. Unsurprisingly, this made Dow very unhappy. Once the source was identified, Shulgin’s ties to the company were severed.

Free from Dow, Shulgin set up a personal laboratory in his backyard and began researching drugs with complete independence and with the realization that the chemicals he created had the potential to find their way into the heads of at least 1 million people. He tested each new compound personally and, if he deemed it worthy, on his wife and friends, with a special emphasis on the sex-enhancing properties of psychedelics (or as he calls it, “the erotic”). Over the course of 50 years, he completed the most exhaustive examination of psychedelic structures ever accomplished and manufactured an array of drugs that rivals the output of many large pharmaceutical companies. All the while he has maintained his sanity and gentlemanly composure by playing the viola, teaching university classes, and attending elite soirees at Bohemian Grove.¹

When I arrived at Shulgin’s home in Lafayette, California, he was peacefully sitting at the kitchen table. I walked through the sliding glass door, greeted him, and then embraced him, which produced a euphoria far greater than that of MDMA and a time dilation more profound than the effects of 2C-T-4. We disengaged and, without pause, he began to riddle me: “Can you name the two words in the English language that begin with two consecutive a’s?”

I thought for a moment before answering, “Aardvark is one...”

“Yes, good, and the other?”

“I don’t know, I can’t think of another.”

He bent down his head and said in a low whisper, “*Aardwolf*.”

“Aardwolf?” I asked, and with that he had already risen from his chair and shuffled into the hallway to retrieve a giant yellow dictionary, which he dropped onto the kitchen table and pushed toward me. Sure enough, it’s there, and on his prompt I read the definition aloud:



aard·wolf \-wulf\ *n*, *pl* **aard·wolves** \-lvz\ [Affric, fr. *aard* earth + *wolf*; akin to OE *wolf* *wolf*—more at **WOLF**] **1**: a hyenalike quadruped of South Africa having a striped coat, five-toed forefeet, and a distinct mane, feeds chiefly on carrion and insects (as termites), and is usu. placed in the *Hyaenidae* though formerly separated in another family (*Proteridae*). **2**: an (extremely) unexpected nonpsychedelic-related thing, which confuses me [see more at I’M NOT PREPARED FOR THIS].

“OK,” Shulgin said, satisfied. “We’ve solved that problem. But now, for example, do you know what a lowena is?”

“No, what’s that?” I asked credulously.

“It’s the opposite of a highena.”

“Aha!” I urinated a microliter in my pants and changed the subject. “I brought you a peach pie. Would you like a slice?”

He answered the question with another question: “How many numbers are to the right of the decimal point in π ?”

“Just one.” I had nervously confused right and left, but Shulgin immediately adjusted his line of questioning.

“OK, so what is the value of π ? 3.14159265... But how many numbers *can* appear in front of the decimal point in π or in any rational number?”

“Potentially an infinite amount of numbers.”

“Right, and how large is this infinity?”

“Excuse me?”

“How *large* is this *infinity*?”

“That’s a difficult question to answer,” I replied.

“I’ll give you another question and let you do a comparison: How many numbers are there to the right of the decimal point? One? An infinite number? Not only an infinite number but an infinitely larger infinite number.”

“How can? OK, wait...”

From there on our conversation wound through similar territory. We spoke mostly in riddles, including but not limited to numerical palindromes, hyphenated palindromes (or the lack thereof), SI units of mass with an emphasis on the femtogram, words that begin with the letter *x* and words that begin with the sound *x*, the ambiguities of cactus identification, the correct pluralization of the word “fungus” (of which there are three variations and four pronunciations²), and an analysis of the peach pie I brought as a hypothetical new psychedelic drug (5-MeO-PEACHPIE). I was asked to calculate an appropriate portion for my first taste. After extrapolating data from its closest analog (5-MeO-APPLEPIE), we decided on a one-femtogram slice (for safety reasons). Then he put his sandals on over his black socks, picked up his silver cane, and asked, “Should we go to the lab?”

Before we left, Ann brought out a large, frosty pitcher of strawberry lemonade. I had to remind myself that this was Ann Shulgin—the woman who pioneered the practice of MDMA psychotherapy—who in this very house, perhaps in this room, used MDMA and 2C-B to treat everything from nitrous-oxide addiction to demonic possession (or, technically, postexorcism demonic harassment), often with patients finding themselves cured in ways that years of conventional talk therapy could have only begun

¹ A place where, I have a feeling, he has “tasted” many a psychedelic with various captains of industry. According to one friend, he was spotted offering to teach the head of Boeing “a new way to fly.”

² “Fungi,” “fungus,” and “funguses,” with special attention paid to the variant pronunciations of “fungi”—“fun-gee” and “fun-guy.” It should be noted these questions come from a man who published a two-page editorial in the Journal of Clinical Toxicology dedicated to how irksome it is when people incorrectly pluralize the word “amphetamine.” The implication being that this grammatical error is the most heinous amphetamine abuse of all. So please, in the future remember Adderall contains amphetamine, not amphetamines.



A collage entitled *Psychedelic Cuddle* by Shulgin enthusiast William Rafti. Rafti also designs tattoos and blotter art.

The lab was a Pyrex jungle, a barrage of borosilicate, a bevy of beakers, a bouquet of burettes, all manner of vulcanized rubber bung.

to remedy. I sipped some of her lemonade, gazed past their Huichol yarn paintings through a window that perfectly framed the two-humped Mount Diablo, and sighed. “I hope you don’t mind my using my bare hands,” Ann said as she dropped additional ice cubes into my glass. “Not at all,” I said. I wouldn’t have minded if the ice cubes were dropped into my cup with her bare feet.

After sipping and savoring some lemonade, I took a nystagmic walk down the hall and entered the bathroom. The wallpaper’s lattice of black diamonds is the very same pattern that reached out and shook Shulgin’s hand during the first trials of TMA-6.³ As I stood over the powder-blue toilet attempting to pee, I pondered the contents of his septic tank—a pharmacokinetic treasure trove, which undoubtedly contains the world’s most diverse collection of psychedelic urinary and fecal metabolites!

Even Shulgin’s modestly sized burgundy terrycloth hand towels and wintergreen mouth rinse demanded my attention. I could hardly pee.

I left the bathroom to find Shulgin waiting in the backyard. We walked down the glittering stone path to his laboratory. The sun was

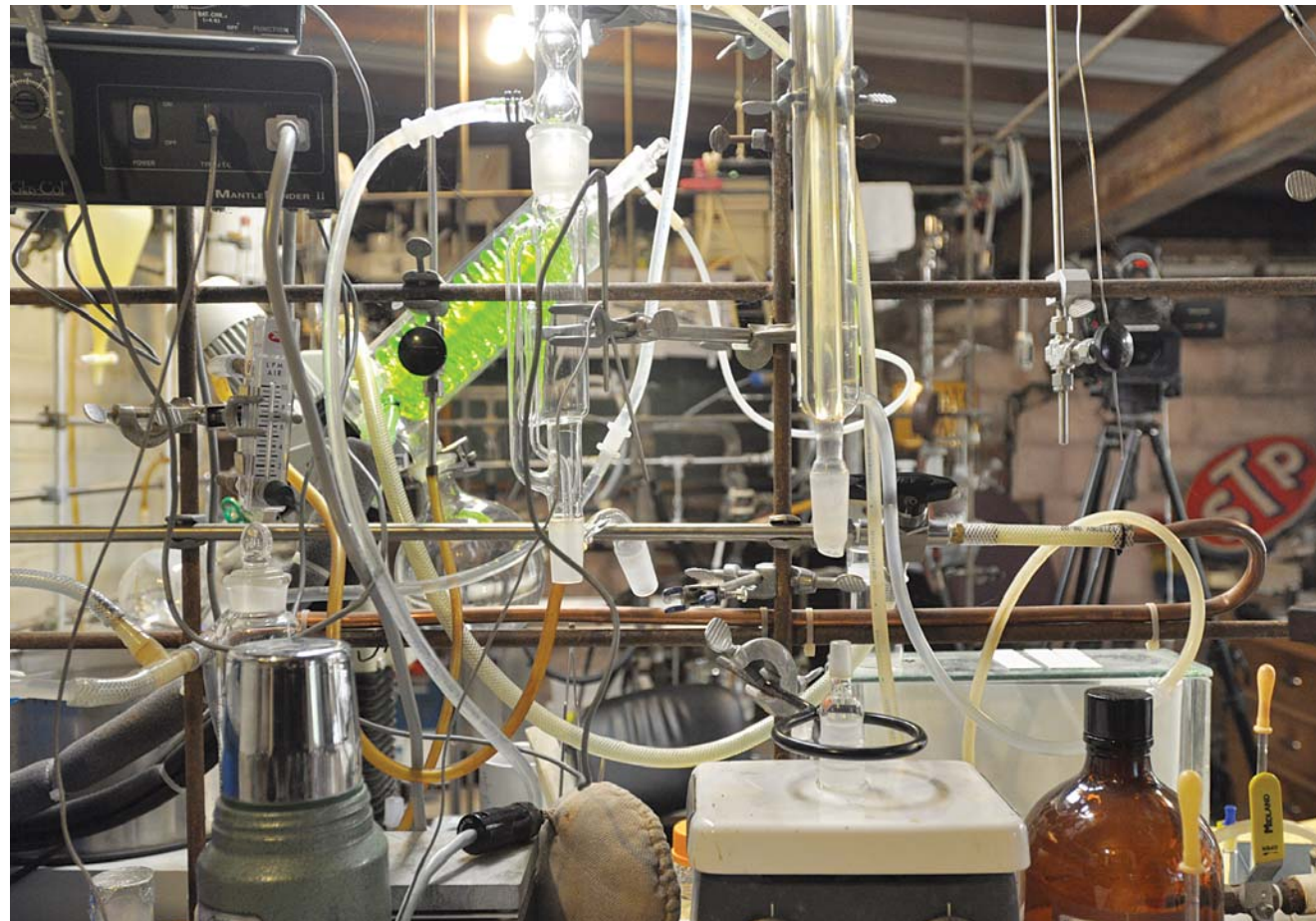
shining through the leaves, casting shadows on his gargantuan collection of psychedelic cacti, including an enviable *Trichocereus bridgesii forma monstrose* (a spineless phallic-formic mescaline cactus, also known as the penis plant). We passed a coiled garden hose, which Shulgin once notionally unraveled while testing the effects of ALEPH-1, and crossed over a small metal bridge as the lab became visible. Overgrown with vines, it was

a patchwork cottage of corrugated metal and plastic that emanated the sharp, musty scent of DMT. As he opened the door, he exclaimed, “Ho-ho-ho!”

The lab was a Pyrex jungle, a barrage of borosilicate, a bevy of beakers, a bouquet of burettes, all manner of vulcanized rubber bung. Desiccation bells, pinned butterflies, and mason jars crammed with a slurry of what I could only guess were pickled mushrooms. Pressed behind a sheet of glass were three blades of ryegrass infected with deep purple fingers of *Claviceps purpurea*, the fungal precursor to LSD and the mold responsible for the medieval scourge of Saint Anthony’s Fire. On his blackboard was a diagram of a yet-to-be-synthesized molecule, which I recognized as 3,4-MD-4-methylaminorex—a derivative of the highly euphoric psychostimulant 4-methylaminorex that, in the mid-80s, attained cult-drug status under the name U4E-uh. Beneath the molecular diagram was the simple caption “MAKE ME!”

There was a collection of round-bottomed flasks on the table, each containing a small scab of impure tryptamine crust. One flask was labeled 5-MeO-MALT, another 5-MeO-NALT. Shulgin began to explain, “DAIT is the first one—it’s the diallyl—and the methylallyl is MALT. Then EALT and then,” he puckered his lips and pushed out a plosive, “PALT and iso-PALT and so forth. 5-MeO-DAIT was an active compound, so I’m pursuing that line further. Usually they wait about four years after I get something out that becomes popular, and then they make it illegal. But I sent the synthesis for 5-MeO-DAIT to a friend. He put it on the internet, and one month later it was synthesized in China and sent via Europe to this country. Now it’s available on the street!”

A bit of background on that statement: On May 24, 2004, Shulgin sent an email to a psychonaut named Murple regarding the synthesis and effects of 5-MeO-DAIT. He



Inside the Pyrex jungle.

formatted the description in the style of a *TiHKAL* entry and said that it would be included in his forthcoming book. That same day, Murple posted the 5-MeO-DAIT synthesis on his personal website. On June 25, it became openly available from a gray-market laboratory for \$200 per gram. On September 25, 2004, three months after the chemical hit the market, the first-recorded 5-MeO-DAIT overdose occurred when a Floridian user accidentally ingested 225 mg (more than 11 times the maximum dose Shulgin tested) in the midst of Hurricane Jeanne. He survived the experience and shared numinous insights such as “Ozzy and the like do not mix well at all with this substance.”

If Shulgin whispers even a word of praise about a new drug, it is almost guaranteed to traverse international borders within a few months. If someone dies after taking one of these substances, there will be irresponsible media coverage, public outrage, and hurried scheduling by various drug-enforcement agencies. The UK went so far as to ban the entire roster of drugs presented in *PiHKAL* in a single act. Despite his detractors,

Shulgin firmly believes that his research must remain openly available for educational purposes—whether it’s DEA officers or DXM addicts. But there is one instance where Shulgin deemed his chemical revelations too enlightening for public consumption. While testing an amphetamine he christened ALEPH-1, he wrote in his notebook, “Tell NO ONE about this drug so that it can never be identified and there can be no moves made to destroy it... Persisting in scientific publication in all peripheral areas as subterfuge, diversion. Keep all progressive work in my appendices. Code them ‘SH’—too informative.” It was “too informative” because Shulgin believes ALEPH-1 is the “essence of power”⁴ and if the DEA discovered it they would attempt to destroy it. When I asked him whether he has ever felt that way since, he quickly said, “No, you must publish.” But part of me wonders whether there is in fact a special notebook labeled “SH” stashed away somewhere on a cobwebbed shelf.

Later in the day, Paul D., Shulgin’s collaborator, joined us. He has known Shulgin

for decades and began assisting him in the lab last year. I asked Paul whether he had tried any of the new tryptamines they were currently working on, and he shook his head, “No, Sasha is *always* the first to taste new materials.” The reason Shulgin is always the first to experience his creations is completely altruistic. Should a chemical have an unexpected toxic effect, such as inducing a seizure, he wants to protect his family and friends. Although I suspect there is another reason Shulgin likes to have the first taste: The sensation of synthesizing a completely unknown drug and ingesting it, a sensation that can only happen one time, is clearly druglike in and of itself. It’s the breaking of a transdimensional, neurochemical hymen. In a sense, it’s the one drug he keeps coming back to. Ask Shulgin what his favorite psychedelic is and he will say “2C-B”⁵ without hesitation. Ask him how many times he has taken it and he’ll say “a few.” This is a guy who has had approximately 10,000 psychedelic experiences. No drug, not even his cherished 2C-B, tastes better than the untasted.



A friendly reminder to the DEA should they try to harass Shulgin.

³ Shulgin’s first chemical modification to the mescaline molecule was the addition of a single carbon atom to the ethylamine side chain, which produced an amphetamine called TMA. From there he developed TMA-2 through TMA-6. They became moderately popular psychedelics in Japan and the US, and TMA-6 remains an unscheduled substance. Shulgin enjoyed TMA-6, although he felt “toasting the toast in the toaster was difficult.”

⁴ Shulgin created a series of sulfur-containing psychedelic amphetamines named after the Hebrew letter ש. ALEPH-1 was the first. True to his method of vigilant titration, his first dose was 250 nanograms. Over the course of 18 trials he worked up to a single milligram. It detonated an intellectual hydrogen bomb in his prefrontal cortex.

⁵ 2C-B is the archetypal Shulgin psychedelic. It possesses all the qualities he searched for throughout his career. 2C-B is potent, warm, corporeal, associative, shows no signs of physical toxicity, and has a short duration, ideal for psychotherapy. It is also extremely “erotic.” Shulgin said, “If there is anything ever found to be an effective aphrodisiac, it will probably be patented after 2C-B in structure.” It was, unfortunately, made illegal after a brief stint as a legal sex enhancer and widespread distribution under the name Ubulawu Nomathotholo by South African shamans (an incredible story for another time).

Eventually Paul brought in dozens of green cardboard boxes full of chemicals. They contained a physical history of Shulgin’s entire pharmacopeia. A life’s work corked up in three-dram vials. The collection was *supremely* tantalizing and borderline pornographic. My heart rate increased and my brow began to perspire, as I tried my hardest to avoid undignified Tex Avery-type behaviors like panting, making an *aroogah* sound, or letting my eyeballs fall out of my head. He removed the lid, revealing 100 alphanumerically indexed cells that housed glass vials, with conspicuous lacunae once occupied by Schedule I drugs. Each vial’s gummed label was hand-inscribed with a small molecular diagram. Many of these substances don’t exist anywhere else in the known universe. Shulgin is not only a chemist, he is a collector. Early in his career he ambitiously sought to accumulate every psychoactive drug in the world but eventually realized he couldn’t keep up. According to the index card, the (partial) contents of the single box Paul opened included trichocereine, crude curare, isomescaline, amphetamine, R-DOM, MDMA, DET, DiPT, scopolamine, benzphetamine, d-methamphetamine, aspirin, berberine, physostigmine, papaverine, pipradol, aconite, thebane, pilocarpine, oxycodone, oxymorphone, several forensic samples of PCP dated and labeled “illicit PCP 1975,” and my dear old friend Ritalin.



A shelf of reagents, solvents, and a large jar of piperonal—one precursor for MDA.

Outside the lab Paul was sorting through another box of boxes, which contained at least 1,000 additional vials. “These are mostly chemical intermediates—a trimethoxybenzaldehyde oil,” he said as he uncorked one and held a sample of black goo to his nose for a sniff. “It has an interesting smell,” he remarked as he passed it to me. I closed one nostril and took a hard whiff. It smelled like Vicks

VapoRub and sent a horrific pulse of nausea through my body, which was accompanied by an instantaneous pounding headache. Still, I’m glad to have allowed a few femtograms of chemical from Shulgin’s collection into my bloodstream. Paul continued, “This is 2-ethoxy-benzaldehyde.” He took another sniff and passed the vial to me as if we were assessing the bouquet of a fine wine. “More



The author touching a specimen of *Trichocereus bridgesii forma monstrose*, aka the penis cactus. It was very “erotic.”



It’s never easy to say goodbye.

intermediates in the production of amphetamines and phenethylamines...” He pulled out a vial full of canary-yellow crystals and began deciphering the molecular structure on the label. “This is a diphenyl...” I craned my neck over the vial, totally hypnotized until Shulgin exclaimed, “Let’s go and have some lunch!” Paul stayed behind while we walked back to the house and I enjoyed a piping-hot pizza with Ann, while Shulgin opted for an egg-salad-on-white-bread sandwich. It was a very casual, nervous, and astonishing midsummer lunch with the greatest psychedelic chemist in the world. Suddenly Paul burst into the room, short of breath: “A team of scientists in Japan just discovered a 12-step total synthesis of Salvinorin A!” Everybody began to murmur; Shulgin was impressed. “Oh my, that’s a difficult one,” he said. “A real treasure of symmetry. You know, Salvinorin has 128 possible isomers.” I wished the day would never end. I sat looking at (and possibly ogling) Shulgin chewing his egg-salad sandwich and thought about the superhuman influence his work endured on the world. The hundreds of deaths, millions of freak-outs, tens of billions of dollars exchanged of which he has not received a dime, cumulative millennia of prison sentences, trillions of transformative experiences, decaliters of joy tears, decibels of laughter, and so forth. I wanted to tell him how much he has changed my life; I wanted to offer him 1,000 screaming genuflections of gratitude for everything that

I wanted to offer him 1,000 screaming genuflections of gratitude for everything that has happened to me on substances he has created and championed.

has happened to me on substances he has created and championed. My bed collapsing while I was on 2C-B. Being cradled like a child by a computer programmer as I lay dying on DOC. Biting a crisp Red Delicious in the seminary on 2C-E. Finding a nippy jug of milk on a stoop and being attacked by a dog on DiPT. The Central Park portrait artist who drew me as if I were Enrique Iglesias on 4-HO-MiPT. Memorizing the Hertzsprung-Russell diagram on 2C-D. Burying my face in a sopping-wet wig I found on the floor of a taxi on 4-HO-MET. These were all holy and wonderful things that I wanted to tell him. I would not be capable of giving him enough thanks.

Near the end of our meeting, I asked whether I could look through the lab once more while the Shulgins finished their meal. I was granted permission and went back to touch and smell and examine things in silence. There may be empty slots in the green boxes where the 5-MeO-DiPT, 2C-B, DOB, and DOM once stood—they are the scars that his

collection bears—but there is no way to retract a molecule. The fact that he has created these chemicals and published their syntheses ensures their survival. It’s no wonder he is still tripping at 84. In fact, he said that his newest creation, 5-MeO-MALT, is showing activity at 1.8 mg, which suggests it may be quite potent. But he also said that, as he has grown older, the dose required to produce an effect has decreased significantly. “Threshold effects?” I asked. He pauses for a moment. “Oh, ‘effects.’ I thought you said ‘sex!’”

If, indeed, this non-interview was Shulgin’s last interview, it left me partially unfulfilled. I still have so many questions. But my visit with the Shulgins made me realize that maybe it’s time to answer my own questions. Which is fair and good, a gift even. He has, after all, answered more than enough. Regardless, it was difficult for me to leave his lab. I wanted to hide in the trash can or climb a tree; I really didn’t want this story to end. ■

Gaze upon VBS.TV this month to see more of Hamilton’s chemical rendezvous with the Shulgins. It’s an eye romp.